

Memorandum

Date: September 10, 2007
Telephone: (916) 653-0062

To: Jackalyne Pfannenstiel, Presiding Member
John L Geesman, Associate Member

From: California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Jack W. Caswell, Project Manager

Subject: **COMMISSION STAFF RESPONSES TO THE COMMITTEE PMPD HEARING ORDER
AND COMMENTS ON THE PRESIDING MEMBER'S PROPOSED DECISION FOR THE
WALNUT CREEK ENERGY PARK (05-AFC-2)**

In response to the Committee in the Notice of Hearing on Proposed Decision and Evidentiary Hearing for the Walnut Creek Energy Park, staff is providing a two-part PMPD comment document. Commission staff is providing additional testimony as directed in that notice and providing comments on the Presiding Members Proposed Decision. Testimony responses have been provided in the technical areas: Alternatives, Air Quality, and Visual Resources. Comments on the Presiding Members Proposed Decision are provided for the following technical sections: Air Quality, Cultural Resources, Geology and Paleontology, Noise and Vibration, and Socioeconomics.

Attachments
cc: Proof of Service List

**WALNUT CREEK ENERGY PARK
(05-AFC-2)**

**RESPONSE TO COMMITTEE NOTICE OF HEARING ON
PROPOSED DECISION AND EVIDENTIARY HEARING**

Table of Contents

SUMMARY OF AMENDED SECTIONS	3
ADDITIONAL TESTIMONY	4
TECHNICAL AREA: ALTERNATIVES	4
TECHNICAL AREA: AIR QUALITY	5
TECHNICAL AREA: VISUAL RESOURCES	8
STAFF COMMENTS ON PRESIDING MEMBERS PROPOSED DECISION	12
TECHNICAL AREA: AIR QUALITY	12
TECHNICAL AREA: CULTURAL RESOURCES	13
TECHNICAL AREA: GEOLOGY AND PALEONTOLOGY	18
TECHNICAL AREA: NOISE AND VIBRATION	19
TECHNICAL AREA: SOCIOECONOMICS	20

SUMMARY OF AMENDED SECTIONS

This table indicates the technical sections where additional testimony has been provided for the WCEP FSA and Comments on the PMPD:

Subject Area Testimony	Subject Area Comments
Alternatives Geothermal	Air Quality
Air Quality	Cultural Resources
Visual Resources	Geology and Paleontology
	Noise and Vibration
	Socioeconomics

Note: The subject area testimony in this document is intended to complete the evidentiary record as requested by the Committee for the Presiding Member's Proposed Decision.

ADDITIONAL TESTIMONY

Technical Area: Alternatives

Author: Fritts Golden

Date: September 10, 2007

Final Staff Assessment

Section Heading: NON-SITE ALTERNATIVES - GEOTHERMAL

BACKGROUND

Geothermal technologies use steam or high-temperature water obtained from naturally occurring geothermal reservoirs to drive steam turbine/generators. Geothermal is a commercially available technology; however, it is limited to areas where geologic conditions resulting in high subsurface water temperatures occur. There are no viable geothermal resources located in the vicinity of the proposed project in the City of Industry, Los Angeles County.

CONCLUSION REGARDING GEOTHERMAL TECHNOLOGIES

Geothermal generation is limited to areas with the necessary geologic conditions to create steam or high-temperature water that can be tapped to generate electricity. The nearest geothermal areas with commercial quantities of steam are in Imperial County. By its nature, geothermal generation typically provides a base load source of power and is insufficient for use in situations requiring a rapid response to periods of peak demand. Therefore, geothermal technologies do not fulfill a basic objective of the proposed project to provide peak load serving capability in order to ensure a reliable supply of electricity in the region. A geothermal alternative also does not meet a number of the screening criteria for the proposed project. It does not minimize or eliminate the length of project linears nor provide peaking power generation near the centers of electrical demand. Consequently, staff does not believe that geothermal technologies present feasible alternatives to the proposed project. Staff does not recommend a geothermal alternative over the proposed preferred project technology.

Technical Area: Air Quality
Author: Joseph M. Loyer
Date: September 10, 2007

Presiding Member's Preliminary Decision
Section Heading: Air Quality – General Project Operation

BACKGROUND

On page 19 of Presiding Members Proposed Decision, the Committee has expressed its desire to seek confirmation from Staff and the Applicant that the CEQA review submitted to the record is sufficiently comprehensive to include operation of the project to the seasonal and annual capacity factors predicted by the Energy Commission Electricity Analysis Office (EAO) testimony. The testimony in question that is pertinent to the air quality section of the CEQA review is the assertion by EAO that the Walnut Creek Energy Center could be dispatched to an annual capacity factor of no more than 65%.

Subsequent to that testimony, the South Coast Air Quality Management District approved amendments to Rule 1309.1 (Priority Reserve) limiting the operation of simple cycle power plants within Zone 2 (as defined by Rule 1309.1), which includes the Walnut Creek Energy Center, to no more than 4,000 hours per year per unit. That is a capacity factor of approximately 45%.

The Walnut Creek Energy Center is also limited by the RECLAIM trading credits (RTCs) that they are required to hold (Conditions of Certification AQ-2 and AQ-16) on an annual basis (balanced quarterly). This annual limit was calculated assuming the short term NO_x emission limit of 2.5 ppm @ 15% O₂ averaged over an hour (Condition of Certification AQ-4), startup, shutdown emission requirements, and 3,500 hours of operation per year. It is a standard industry practice to operate between 80% and 95% of the project short term NO_x emission limits at a maximum, in order to avoid a notice of violation from the air district. If the Walnut Creek Energy Center is operated in this manner, staff estimates that the project will be able to operate an additional 200 to 700 hours per year without violating the annual RTC holding requirement. The other criteria pollutants (SO_x, CO, VOC and PM₁₀/PM_{2.5}) are regulated on a monthly basis and projects typically operate at approximately 60% to 80% of those emission limits.

RESPONSE TO COMMITTEE REQUEST

Therefore, the air quality section of the CEQA review submitted to the record for the Walnut Creek Energy Center can adequately support an annual capacity factor of no more than 4,000 hours per year per turbine or approximately 45%. To operate beyond this capacity factor would violate Conditions of Certification AQ-1 and AQ-2, as well as the South Coast Air Quality Management District Rule 1309.1.

SCAQMD Rule 1309.1 – Amended August 3, 2007

On August 3, 2007, the Governing Board of the South Coast Air Quality Management District approved amendments to Rule 1309.1, the Priority Reserve Rule. As a result of the amendments, electric generating facilities (EGFs) are now required to comply with additional criteria to gain access to the Priority Reserve Credits (PRCs). The South

Coast Air Quality Management District (AQMD) has issued a letter to all applicants seeking access to the priority reserve, including Edison Mission Energy (EME), requesting that the applicant submit further information to demonstrate compliance with the new requirements of Rule 1309.1. Three of the new requirements in amended Rule 1309.1 are likely, in staff's view, to result in new conditions for the Walnut Creek Energy Center.

- Rate of PM10 emissions must remain less than or equal to 0.06 lbs/MW-hr.
- Rate of NOx emissions must remain less than or equal to 0.08 lbs/MW-hr.
- Hours of operation for simple cycle EGFs must remain less than or equal to 4,000 per year.

Staff does not expect the AQMD to re-issue the Final Determination of Compliance (FDOC) for the Walnut Creek Energy Center in time for the evidentiary Hearing scheduled for September 12, 2007. Without the revised FDOC, staff cannot independently determine that the project will comply with the laws, ordinances, regulations and standards (LORS) of the AQMD. However, staff is reasonably confident that, through the AQMD permitting process, the project will demonstrate compliance with all AQMD LORS.

Potential CEQA Issue

Section d(14) of Rule 1309.1 requires that the applicant obtain a long term contract with either Southern California Edison, San Diego Gas and Electric or the State of California. EME does not currently have a long term contract of this nature to staff's knowledge. However, section d(14) also states that the applicant may petition the Governing Board at a public hearing for a waiver for the long term contract requirement. It is unlikely that this new requirement will result in a new condition imposed on EME by the AQMD. It is also unclear as to when it is necessary for EME to demonstrate that they either have a long term contract or are seeking a Governing Board Waiver. This timing issue is pertinent to the Energy Commission review in that the Governing Board may decide, for non-technical reasons, not to grant a waiver to EME for the Walnut Creek Energy Center. This would result in EME having no access to the Priority Reserve and thus no mitigation for the Walnut Creek Energy Center PM10, PM2.5 or SOx air quality emission impacts.

Section d(12) of Rule 1309.1 states that the Executive Officer of the AQMD may only release PRCs to a qualifying EGF for only the first 2,700 MW of capacity requested. The Rule contains no guidelines as to how the Executive Officer is to make this determination. If the Executive Officer makes the determination that the project capacity exceeds the first 2,700 MW, then the applicant must obtain a waiver for this provision from the Governing Board. If the waiver is not granted, the applicant cannot have access to the PRCs. This would result in EME having no access to the Priority Reserve and thus no mitigation for the Walnut Creek Energy Center PM10, PM2.5 or SOx air quality emission impacts.

Staff, therefore, recommends that the following condition be added to the Conditions of Certification. This condition requires that EME demonstrates compliance with Air Quality

sections d(12) and d(14) of rule 1309.1 or obtain a waiver from the Governing Board. This condition replaces Condition of Certification AQ-SC8 which was previously deleted.

AQ-SC8 Delete Condition in PMPD and replace with

AQ-SC8 The project owner/operator shall perform the following requirements prior to construction ground disturbance.

Demonstrate Compliance with Rule 1309.1 Section d(12) by either:

1. Providing a letter from the Executive Officer of the South Coast Air Quality Management District stating that the project capacity is within the first 2,700 MW of capacity requested pursuant to Rule 1309.1 Section d (12).

Or

2. Providing a letter from the Governing Board of the South Coast Air Quality Management District granting a specific waiver to the AQMD Rule 1309.1 section d(12). This letter must be on the Governing Board letterhead and signed by the appropriate members of the Governing Board.

Demonstrate Compliance with Rule 1309.1 Section d(14) by either

1. Providing non-confidential evidence that the project owner/operator has entered into a long-term power purchase agreement contract as required by AQMD Rule 1309.1 with Southern California Edison Company, San Diego Gas and Electric Company or the State of California.

Or

2. Providing a letter from the Governing Board of the South Coast Air Quality Management District granting a specific waiver to the long term contract requirement of AQMD Rule 1309.1 section d(14). This letter must be on the Governing Board letterhead and signed by the appropriate members of the Governing Board.

Verification: All evidence submitted in compliance with Condition AQ-SC8 must be submitted 30 days prior to construction ground disturbance.

Technical Area: Visual Resources
Author: William Walters
Date: September 10, 2007

Final Staff Assessment

Appendix VR2 - Visual Plume Modeling Analysis

Section Heading: COOLING TOWER VISIBLE PLUME MODELING RESULTS

BACKGROUND

Plume Modeling Analysis

There was a miscommunication with the Electricity Analysis Office (EAO) when obtaining the annual capacity factor cited in the Visual Plume Modeling Analysis. Apparently, the 65 percent annual capacity factor cited would have been appropriate for a combined cycle facility not a simple cycle project, even a high efficiency simple cycle project like the Walnut Creek Energy Park. This was siting staff's error; however, this error did not result in different conclusions or in any additional mitigation recommendations. Recent communication with the EAO indicates that a more reasonable worst-case estimate for the annual capacity factor for a high efficiency peaking turbine project (100 MW or greater facility with a full load heat rate of 8,688 Btu/hr)¹ (Tanghetti 2007). However, the EAO forecasting models cannot account for all future scenarios or specific energy contracts. South Coast Air Quality Management District (SCAQMD) Rule 1309.1 limits simple cycle facilities equal to or less than 500 MW within defined Zone 2 and 3 areas, such as WCEP, that access priority reserve credits to no more than 4,000 hours per year of operation (45.7 percent annual capacity factor). However, this limit does not specify the time of year of operation; so operation in winter daylight hours is not specifically restricted. Therefore, due to the cooling tower design being highly plume conducive, staff continues to recommend Condition of Certification VIS-4, which seeks confirmation of the cooling tower design parameters rather than requiring mitigation.

Staff presents the following changes to its previously submitted testimony:

COOLING TOWER VISIBLE PLUME MODELING RESULTS

VISIBLE PLUME Table 2 provides the CSVP model visible plume frequency results for year round full load operation using a five-year (1996-2000) Burbank meteorological data set, obtained from NCDC.

¹ This estimate is based on a 100 MW facility with an 8,688 Btu/kW full load heat rate with: 1) expected renewable energy based on the renewable portfolio standards (RPS); 2) dry hydro conditions throughout the Western Energy Coordinating Council (WECC); and 1 in 2 peak and energy forecast. A 500 MW peaking facility with a similarly low heat rate, such as WCEP, would be expected to have a somewhat lower estimated annual capacity factor than the EAO modeled 100 MW facility due to the greater increase in available supply that it would provide. **Tanghetti 2007**. Personal communication between Angela Tanghetti, Energy Commission Electricity Analysis Office, and William Walters, Aspen Environmental Group. August 23, 2007.

VISIBLE PLUME Table 2
Predicted Hours with Cooling Tower Visible Plumes
Year Round Full Load Operation Case
Burbank 1996-2000 Meteorological Data

Case	Available (hr)	Plume (hr)	Percent
All Hours	43,848	36,948	84.3
Daylight Hours	22,204	15,870	71.5
Daylight No Rain No Fog	20,293	14,004	69.0
Seasonal Daylight No Rain No Fog*	9,031	7,315	81.0
Daylight Clear Hours	13,716	8,306	60.6
May-Oct Daylight Clear	8,309	4,258	51.2
Seasonal Daylight Clear*	5,407	4,048	74.9

*Seasonal conditions occur anytime from November through April.

The plant design, incorporating several conservative operating assumptions indicates that the cooling tower plume frequency potential (assuming year round full load operation, 100 percent capacity factor) will be significantly greater than the 20 percent threshold trigger. The annual capacity factor for this facility is expected to be less than 100 percent. The applicant has estimated that their initial operation will be limited to 40 percent of summer hours. For the purposes of modeling that was assumed to be June through September, and an evaluation of daily load profiles then suggests normal daily operating hours of roughly 11 am to 9 pm would provide the 40 percent summer capacity factor. The CSVP modeling results were modified to only assume these particular operating hours and VISIBLE PLUME Table 3 provides the resulting daily clear hour plume frequencies.

VISIBLE PLUME Table 3
Predicted Hours with Cooling Tower Visible Plumes
Applicant Summer Only Operation Case
Burbank 1996-2000 Meteorological Data

Case	Available (hr)	Plume (hr)	Percent
Daylight Clear Hours	13,716	1,372	10.0
May-Oct Daylight Clear Hours	8,309	1,372	16.6
June-Sep Daylight Clear Hours	6,011	1,372	22.8

The applicant summer only operations case results in significantly lower daylight clear plume frequencies due to the resulting assumption that the plant will not be operating during the early morning hours and will only operate during the peak of summer. While the May to October period plume frequency is lower than 20 percent, even with the restriction in operating hours, the plume frequency during the operating period of June through September was found to be greater than 20 percent. The modeled plume frequency, using the applicant's summer only operation case, is below staff's initial significance criteria. However, due to the design of the cooling tower being particularly plume conducive, staff is concerned that winter operation or increased summer operation could result in significant plume conditions.

The applicant's estimate of power plant operations may be reasonable for the short-term; however, staff believes that this power plant's operation could will increase significantly over time. To be very conservative, staff selected an~~The CEC Electricity Analysis Office estimated that over the long term a reasonable annual capacity factor~~

for this facility ~~of would be~~ 65 percent². Additionally, a review of 2005 SCE load data provided by the EAO shows an overall power demand split of 60/40 between the May to October vs. November to April periods. Combining the annual capacity factor and the seasonal power demand splits results in an estimated seasonal capacity factor of 78 percent from May to October and 52 percent from November through April. An evaluation of normal daily load profiles from the 2005 SCE load data then suggests normal daily operating hours of 6 am through 1 am for May through October and 9 am through 9 pm for November through April. The CSVP modeling results were modified to only assume these particular operating hours and VISIBLE PLUME Table 4 provides the resulting daylight clear hour plume frequencies for these two seasonal periods.

VISIBLE PLUME Table 4
Predicted Hours with Cooling Tower Visible Plumes
Future 65 Percent Annual Capacity Operation Case
Burbank 1996-2000 Meteorological Data

Case	Available (hr)	Plume (hr)	Percent
Daylight Clear Hours	13,716	6,718	50.0
May-Oct Daylight Clear Hours	8,309	3,918	47.2
Seasonal Daylight Clear Hours*	5,407	2,800	51.8

*Seasonal conditions occur anytime from November through April.

The plume frequencies remain well over 20% of the seasonal (from November through April), daylight clear hours, therefore the seasonal cooling tower plume dimensions were estimated. These dimensions are estimated by the CSVP model and presented in VISIBLE PLUME Table 5.

VISIBLE PLUME Table 5
Predicted Cooling Tower Visible Plume Dimensions

Percentile	Cooling Tower Seasonal "Clear" Hours Plume Dimensions Meters (feet)		
	Length	Height	Width
1%	66 (217)	157 (516)	47 (154)
5%	43 (140)	86 (282)	34 (112)
10%	33 (108)	58 (191)	29 (96)
20%	23 (74)	38 (125)	26 (87)
30%	16 (52)	28 (92)	24 (79)
40%	10 (33)	22 (71)	21 (68)

Results include the cooling tower stack height, see VISIBLE PLUME Table 1.

² This analysis was completed before South Coast Air Quality Management District Rule 1309.1 was completed. This rule limits annual operation to 4,000 hours per year, or an annual capacity factor of 45.7 percent for facilities, such as WCEC, that will access the priority reserve for emission reduction credits. The annual capacity factor of 65 percent factor used in this analysis, considering this rule, is overly conservative, as is the November through April seasonal assumption of 50 percent.

CONCLUSIONS ON THE PMPD FOR VISUAL RESOURCES VR2 VISUAL PLUME MODELING ANALYSIS

The PMPD reference to the 65 percent capacity factor, particularly as it relates to the worst-case operating assumptions assumed for the air quality and public health analyses, should be stricken. SCAQMD Rule 1309.1 effectively limits annual operation to 4,000 hours per year, or a 45.7 percent annual capacity factor. Additionally, the EAO currently estimates a reasonable worst case capacity factor for a high efficiency simple cycle facility to be 17 percent¹. The visual plume analysis, completed prior to the promulgation of the current version of SCAQMD rule 1309.1, used an operating basis that now is clearly overly conservative. However, no mitigation was recommended based on that conservative analysis. Additionally the air quality emissions, both criteria pollutant and air toxic emissions, are effectively limited and mitigated to levels that do not exceed the levels analyzed in the AIR QUALITY and PUBLIC HEALTH sections of the FSA.

¹ There was a misunderstanding when staff requested an annual capacity factor from the EAO and the 65 percent capacity factor assumption is not valid for the Walnut Creek Energy Park.

STAFF COMMENTS ON PRESIDING MEMBERS PROPOSED DECISION

Technical Area: Air Quality

Author: Joe Loyer

Date: September 10, 2007

Final Staff Assessment Page number: 17

Section Heading: Offsets: Availability & Alternatives

Staff offers the following comments on the PMPD Air Quality – General:

1. The PMPD states on page 17:

“However, the Applicant has used due diligence in an attempt to obtain offsets for NO_x, as another precursor to ozone, SO_x, CO, PM₁₀ and PM_{2.5} without success.”

The AQMD does not currently have a PM_{2.5} emission reduction credit banking system and the applicant never sought offsets for CO, preferring to wait for the US EPA to redesignate the South Coast Air Quality Management District as attainment for CO federal ambient air quality standards, which was granted by the US EPA in May of 2007 (posted in the Federal Register August 21, 2007).

2. The PMPD states on page 17:

“The Applicant must pay the District for RECLAIM Trading Credits (RTCs) to offset the NO_x emissions. “

The applicant does not pay the AQMD for RTCs, they are procured through an open market of private holders.

3. The PMPD states on page 17:

“The SCAQMD has established a Priority Reserve Credits (PRCs) for SO_x, CO, PM₁₀ and PM_{2.5}, requiring the Applicant to pay a mitigation fee to the District commensurate with the levels of emissions of each pollutant from the project and at a ratio of 1.2:1.0, and continue to attempt to secure traditional ERCs for each pollutant. “

The AQMD Rule 1309.1 (Priority Reserve) does not establish credits for PM_{2.5} and CO PRCs are not available to the Walnut Creek Energy Center. It should also be made clear that the ratio indicated, “1.2:1.0” is for purposes of determining a price for the PRCs. Any PRCs purchased will be retired at a ratio of 1.0 to 1.0.

Technical Area: Cultural Resources

Author: Dorothy Torres

Date: September 10, 2007

Page 65. Box at top of page, second paragraph, titled "Mitigation," last sentence:

Conditions: **CUL-1** through ~~**CUL-7**~~ **CUL-8**.

Comment: There are eight Conditions of Certification.

Page 69. Commission Discussion, first paragraph:

The Commission has further provided that the supervising Cultural Resources Specialist and any Cultural Resources Monitors shall monitor ground disturbance full-time at the project site where ground disturbance or excavations exceed three feet and for the full width and length of all excavations to ensure no impacts to undiscovered cultural resources. (**CUL-6**) **CUL-6** also provides for a reduction in cultural resources monitoring: "After examining the soils, if the CRS [Cultural Resources Specialist] determines that full-time monitoring is not necessary in certain locations, a letter or e-mail providing a detailed justification for the decision to reduce the level of monitoring shall be provided to the CPM [Compliance Project Manager] for review and approval at least 24 hours prior to any reduction in monitoring."

Comment: Please add the above underlined text to clarify the level of monitoring required for this project. The Commission Discussion implies that on-site monitoring by the Cultural Resources Specialist and Cultural Resources Monitors is continuous and fixed for the duration of construction. That is seldom the case and is only justified in a very archaeologically sensitive area. Staff usually agrees with a Cultural Resources Specialist's well-supported recommendations for reduced monitoring and allows a reduction to once a day, once a week, or some lesser level of monitoring, based on the Cultural Resources Specialist's assessment of soils encountered during the progress of excavation. The Cultural Resources Specialist may due to the site circumstances recommend that no monitoring at all is necessary, and staff has concurred with that judgment on many past projects.

Page 69. Second paragraph, first sentence:

Notwithstanding these provisions, Staff believes that WEAP training to identify cultural resources, ~~and recover/protect~~ provide information regarding applicable laws and penalties under the law, and instruction regarding procedures to be followed if a cultural resource is discovered ~~cultural resources~~ should extend to *all* workers, including those who are in no way associated with ground disturbance and excavation.

Comment:

Please add the underlined text to clarify the content of cultural resources training and to clarify the reasons that staff believes all workers should receive cultural resources training. Since the previous comment clarified that condition **CUL-6** allows for periods of less than full-time or no monitoring on most projects, cultural resources professionals may not be present when cultural resources are encountered during construction. If no cultural resources professionals are present, staff must rely on those workers, of whatever type, who *are* present to recognize cultural resources finds and to know how

to proceed appropriately. Moreover, even when full-time cultural resources monitoring is on-going, the monitor or monitors cannot be everywhere on a construction site. Trained workers of all types can augment the coverage of the professional monitors.

To ensure that significant impacts to all significant cultural resources be mitigated to a less than significant level, staff must first identify cultural resources that could be impacted. On construction sites, having as many trained eyes as possible greatly increases the likelihood that a cultural resources find will be seen, recognized, and reported, so it can be evaluated for significance, and mitigation, if needed, can be prescribed.

Staff understands that all new personnel on a project, must be informed regarding the health and safety program of the employer. The vehicle most projects choose to accomplish this goal is worker health and safety training. After that training is complete, under current provisions in condition **CUL 5**, the project owner shows an environmental awareness video (approved by Energy Commission Compliance Project Manager (CPM)) that includes information regarding biological, cultural, and paleontological resources that could be encountered on the project. The video usually takes 15 to 20 minutes to view. The workers then sign a form verifying that they have received environmental awareness training. For the project owner to arrange for all but a select group of new workers to leave in the middle of the environmental awareness video so that only the select group can watch the few minutes of the video that address cultural resources would be inefficient and clumsy.

Page 69. Commission Discussion, third paragraph:

~~Henceforth, WEAP training will apply to “project managers, construction supervisors, foremen, and general workers who are involved with or operate ground disturbing equipment or tools.”~~

The project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment. The training shall be provided to employees during ground disturbance conducted for any of the above activities and may be discontinued during periods when no ground disturbing activities are conducted by the project.

Comment: Please add the underlined text to ensure that all workers on a project are able to identify cultural resources that may be discovered and that they are aware of the laws that pertain to cultural resources. The underlined text also addresses applicant's concerns regarding the ability to limit training to periods of ground disturbance. The staff-recommended version of **CUL-5** has served projects well with only slight modifications for several years. This version of **CUL-5** addresses applicant concerns regarding the ability to discontinue training when there is no ground disturbance.

Page 71. CUL-1, Verification, second paragraph:

At least 10 days prior to a termination or release of the CRS, or within 403 days after resignation of the CRS,

Comment:

This appears to be a clerical error. The specified time period should be within three days.

Page 75. CUL-5:

CUL-5 Prior to and during the start of pre-construction site mobilization; construction ground disturbance; construction grading, boring, and trenching; and construction (including landscaping), the project owner shall provide Worker Environmental Awareness Program (WEAP) training to ~~project managers, construction supervisors, foremen, and general workers who are involved with or operate ground disturbing equipment or tools.~~ all new workers within their first week of employment. The training shall be provided during ground disturbance conducted for any of the above activities and may be discontinued during periods when no ground disturbing activities are conducted by the project. The training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS shall be available (by telephone or in person) to answer questions posed by employees. The project owner will require all trained workers to sign a WEAP Certification of Completion form. The training shall include:

1. A discussion of applicable laws and penalties under the law;
2. Samples or visuals of artifacts and visuals of archaeological deposits that might be found in the project area;
3. Instruction that the CRS, the alternate CRS, and the CRMs have the authority to halt construction to the extent necessary, as determined by the CRS, in the event of the discovery of or an unanticipated impact to a cultural resource;
4. Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery and to contact their supervisor and the CRS or CRM, and that redirection of work shall be determined by the construction supervisor and the CRS;
5. An informational brochure that identifies reporting procedures in the event of a discovery;
6. A WEAP Certification of Completion form to be signed by each worker indicating that they have received the training; and
7. A sticker that shall be placed on hard hats indicating that environmental training has been completed.

No ground disturbance shall occur prior to implementation of the cultural resources portion of the WEAP program, unless specifically approved by the CPM.

Verification: At least 30 days prior to the beginning of pre-construction site

mobilization; construction ground disturbance; construction grading, boring, and trenching; and construction, the CRS shall provide the training program draft text and graphics and the informational brochure to the CPM for review and approval, and the CPM will provide to the project owner a WEAP Certification of Completion form which the project owner shall require each WEAP-trained worker to sign. The project owner shall provide in the Monthly Compliance Report the WEAP Certification of Completion forms of persons who have completed the training in the prior month and a running total of all persons who have completed training to date. If no training was conducted, the project owner shall indicate the reason why there was no training.

Comment:

The version of **CUL-5** that addressed the applicant's concerns regarding the ability to discontinue training when there is no project related ground disturbance occurring was inadvertently left out of the FSA. The previously stated proposed changes to **CUL-5** provided above incorporates language that addresses the applicant's concern regarding the completion of ground disturbance and cultural resources monitoring.

The proposed changes are also needed because the last several sentences of **CUL-6** allow the Cultural Resources Specialist to propose that monitoring be limited or discontinued based on observations of the soil after construction excavation has begun. If all project personnel are not trained to recognize cultural resources and no cultural resources personnel are on-site, then significant cultural resources may not be identified and significant impacts to significant cultural resources may not be mitigated.

Staff recommends that all new employees be trained because the categories of personnel identified in the deleted version of **CUL-5**, "project managers, construction supervisors, foremen, and general workers who are involved with or operate ground disturbing equipment or tools," may not include all the categories of workers who might observe cultural resources during ground disturbance.

Staff's recommended changes to condition **CUL-5** would require cultural resources awareness training of all new employees during the first week of their employment. Environmental awareness training, including cultural resources training, is usually provided by project owners in conjunction with health and safety training that is required for all personnel. Ordinarily, cultural resources training informs project personnel about relevant laws and the procedures that should be followed if cultural resources are discovered. It also provides an overview of cultural resources and visual images of cultural resources, specific to the project area, that might be discovered.

Since project personnel need to be present for the health and safety training, and the entire environmental training video only takes approximately 15 to 20 minutes, having all personnel watch the entire video, including biological, paleontological, and cultural resources awareness, does not seem time consuming or costly. The cultural resources portion of the video takes just a few minutes. It would be more expensive for the project owner to employ a cultural resources specialist and monitors continuously for the duration of all ground disturbance at the project site than to have all employees watch an extra seven minutes of a videotape that is already being screened for them.

Page 78. CUL 7:

CUL-7 A Native American monitor or monitors shall be obtained to monitor preconstruction site mobilization, construction ground disturbance, construction grading, boring, and trenching and construction; (including landscaping) in areas where ground disturbance exceeds three feet and where Native American artifacts may be discovered. Lists of concerned Native Americans, with contact information, and guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor or monitors shall be given to Native Americans with traditional ties to the area that shall be monitored.

Verification: Within one day of obtaining a Native American monitor, the project owner shall send notification to the CPM identifying the person(s) retained to conduct Native American monitoring in areas where there is a potential to discover Native American artifacts. At least one week prior to the beginning of pre-construction site mobilization; construction ground disturbance; construction grading, boring, and trenching; and construction; in areas where there is a potential to discover Native American artifacts, the project owner shall send notification to the CPM identifying the person(s) retained to conduct Native American monitoring. The project owner shall also provide a plan identifying the proposed monitoring schedule and information explaining how Native Americans who wish to provide comments will be allowed to comment. The project owner shall also ensure that the CRS informs Native American groups of any discoveries of Native American archaeological material. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow ground disturbance to proceed without a Native American monitor.

Comment: The version of **CUL-7** that included language addressing the applicant's previously stated concerns regarding the time frame necessary to obtain a Native American monitor were inadvertently left out of the FSA. The underlined version of **CUL-7** incorporates language that addresses the applicant's concern.

Technical Area: Geology and Paleontology

Author: Dal Hunter, Ph.D, P.E.

Date: September 10, 2007

Final Staff Assessment

Section Heading: Geology and Paleontology

Staff offers the following comments on the PMPD Paleontology section:

1. Page 86, second paragraph under the heading “Fossils – Paleontology”, last sentence:
 - 1) add a comma after the words “paleontologists allows fossils”,
 - 2) add a comma after the words “have been discovered”, and
 - 3) change the words “can be collected” to “to be collected”.
2. Page 86, last paragraph, first sentence: change the word “alluvium” to “alluvial”.

Technical Area: Noise and Vibration

Author: Shahab Khoshmashrab and Steve Baker

Date: August 29, 2007

Final Staff Assessment

Section Heading: Noise and Vibration

Staff supports the Committee's proposed Condition of Certification **Noise-4**. Staff offers the following corrections to the PMPD.

Staff offers the following comments on the PMPD Noise section:

1. Page 126, first paragraph, line 5: Change "49 dBA will prevent an increase" to "48 dBA will prevent an increase".
2. Page 126, first paragraph: Delete the last sentence of this paragraph.

~~The Commission's L90-based 49 dBA requirement is slightly more beneficial to residents than the County's 48 dBA L50-based limitation would have been if it applied to the project.~~

The statement is incorrect and technically flawed.

3. Page 126, second paragraph (under "**Mitigation**"), third line: Change "average of 49 dBA" to "average of 48 dBA".
4. Page 129, Condition of Certification **NOISE-4**, first paragraph, fourth line: Change "and average of 49 dBA" to "an average of 48 dBA".

Technical Area: Socioeconomics

Author: Joseph Diamond

Date: September 10, 2007

Final Staff Assessment Page number: 2-3

Section Heading: Power Plant Equipment and Linear Facilities

Staff offers the following comments on the PMPD Socioeconomics section:

1. Page 139 - Staff has Operation Employment as 9 in the Final Staff Assessment and as identified in the Application of Certification, not 20 as identified in the Presiding Members Proposed Decision.
2. Page 140 - Staff's Final Staff Assessment Environmental Justice minority populations were developed from SOCIOECONOMICS – Figure -1. Staff testimony for a 1-mile area are estimated at a total population of 16,123, minority population 14,275, equaling a minority population of 88.53 percent and for the 6-mile area estimates are a total population of 590,761, minority population of 464,971, equaling a minority population of 78.70 percent.

This differs from the reported populations in the Presiding Members Proposed Decision total population of 12,170 and people of color total of 7,216 or 59.29 percent of the total population.

DECLARATION OF

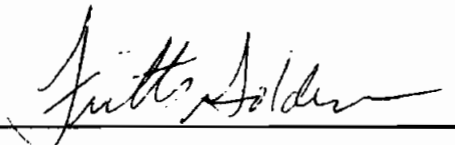
Fritts Golden, AICP

I, Fritts Golden declare as follows:

1. I am presently employed by the California Energy Commission in the Siting Office of the Energy Facilities Siting Division as a Land Use Consultant.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I helped prepare the staff testimony on Alternatives for the Walnut Creek Energy Park project based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 5, 2007 Signed: _____



At: Sacramento, California

DECLARATION OF

Joseph M. Loyer

I, Joseph M. Loyer declare as follows:

1. I am presently employed by the California Energy Commission in the Siting Office of the Energy Facilities Siting Division as an Associate Mechanical Engineer.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I prepared the staff testimony on Air Quality for the Walnut Creek Energy Park project based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 3-9-07

Signed: 

At: Sacramento, California

**DECLARATION OF
Testimony of William Walters, P.E.**

I, **William Walters**, declare as follows:

1. I am presently employed by Aspen Environmental Group, a contractor to the California Energy Commission, Systems Assessment and Facilities Siting Division, as a senior associate in engineering and physical sciences.
2. A copy of my professional qualifications and experience is attached hereto and incorporated by reference herein.
3. I helped prepare the staff testimony on **Visual Resources (Visible Plume Modeling Analysis)**, for the **Walnut Creek Energy Park project** based on my independent analysis of the Application for Certification and supplements hereto, data from reliable documents and sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.
5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 2, 2007

Signed: _____



At: Agoura Hills, California